

DRILL HOLES

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BORDER REV. DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with street lighting and interconnect at the intersection of MD 117 (Clopper Rd) and Kingsview Rd in Montgomery County. Countdown pedestrian heads with audible pushbuttons shall be installed across the north and east legs of this intersection. MD 117 (Clopper Rd) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

- The intersection shall continue to operate in a NEMA three-phase, semi-actuated mode, with the MD 117 (Clopper Rd) approaches running concurrently. A Countdown pedestrian phase with audible pushbutton actuation shall be provided across the east leg of MD 117 (Clopper Rd). A Countdown pedestrian phase with audible pushbuttons on recall shall be provided across Kingsview Rd. The far-side sampling stations on the east leg of MD 117 (Clopper Rd) shall remain in operation at this intersection. The Kingsview Rd approach shall continue to run in its own phase.
- The existing full-traffic-actuated, eight-phase controller with L.A.U. and L.A.U. Panel and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.
- Montgomery County Signal Shop shall install APS control unit into controller cabinet. The APS push buttons should be delivered to the Montgomery County Technical Center for programming at least two weeks prior to the beginning of work.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by Montgomery County Forces. Contact Kamal Hamud at (240) 777-8761 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

4. APS will function as follows:

TO CROSS CLOPPER ROAD

- When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message "Wait to cross Clopper at Kingsview, WAIT."
- When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.

TO CROSS KINGSVIEW ROAD

- When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message "Wait to cross Kingsview at Clopper, WAIT."
- When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.

The contacts for Montgomery County and SHA are as follows:

Ms. Anyesha Mookherjee Assistant District Engineer - Traffic Phone: (301) 513-7318	Mr. Richard L. Daff, Sr. Chief, Traffic Operations Division Phone: (410) 787-7630
Mr. Vernon Stinnett Assistant District Engineer - Maintenance Phone: (301) 513-7304	Mr. Bob Ricketts Signal Shop (Mont Co.) 240-876-3681
Mr. Victor Grafton Assistant District Engineer - Utility Phone: (301) 513-7350	Mr. Sonny Bailey Manager, Sign Shop Operations 410-787-7670

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
	S1-1 "SCHOOL CROSSING (Symbolic) FLASHING" sign, (30"x30") pole mounted	2 Each
	W16-7p(L) "LEFT DIAGONAL ARROW (Symbolic)" sign, (24"x12") ground mounted	2 Each
	Pedestrian pushbutton and pedestrian education R10-3(1) sign. (Note: Sign to read "PUSH BUTTON TO CROSS KINGSVIEW RD")	2 Each
	Pedestrian pushbutton and pedestrian education R10-3(1) sign. (Note: Sign to read "PUSH BUTTON TO CROSS CLOPPER RD")	2 Each

EQUIPMENT LIST (cont.)

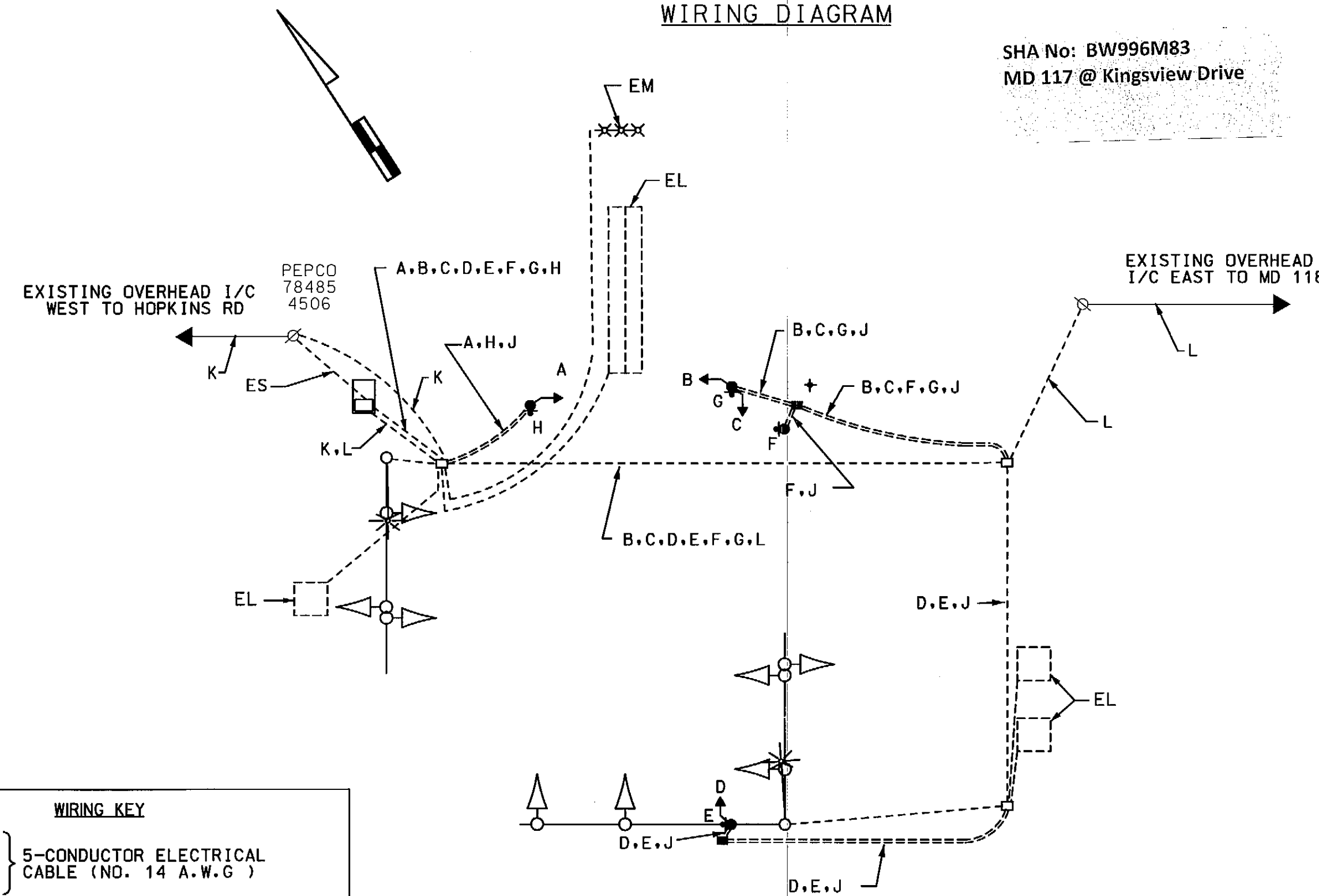
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of Traffic	2 Day
2001	Class 2 Excavation.	5 C.Y.
2002	Test pit excavation.	4 C.Y.
5012	Standard Type A curb, 8" x 17".	250 L.F.
5016	4" concrete sidewalk, mix No. 2.	920 S.F.
5020	Remove curb and gutter.	125 L.F.
5022	Remove sidewalk.	510 S.F.
8001	Concrete foundation.	2.5 C.Y.
8023	3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).	195 L.F.
8043	Ground rod, 3/4" diameter x 10' length with clamp.	1 Each
8064	2-conductor electrical cable (No. 14 A.W.G.).	910 L.F.
8066	5-conductor electrical cable (No. 14 A.W.G.).	930 L.F.
8075	1-conductor electrical cable (No. 6 A.W.G.) stranded bare copper ground wire.	270 L.F.
8081	Wood sign supports (4" x 4").	32 L.F.
8136	Traffic signal handbox (pullbox).	2 Each
8148	Relocate sign.	2 Each
Neg.	Remove existing pavement markings.	30 L.F.
Neg.	12" white heat applied permanent preformed thermoplastic pavement marking.	425 L.F.
Neg.	24" white heat applied permanent preformed thermoplastic pavement marking.	30 L.F.
Neg.	Furnish and install depressed curb & gutter.	45 L.F.
	10' breakaway pedestal pole with transformer base.	3 EA
	5' breakaway pedestal pole with transformer base.	1 EA
Neg.	Furnish and install 16" LED Countdown pedestrian signal head.	4 Each
	Roadway sawcut.	70 L.F.
	2 wire Central Control unit	1 EA
	Detectable warning surface	80 S.F.
	Audible/tactile pedestrian pushbutton station & signs.	4 EA
	Backfill	290 SF

PHASE CHART

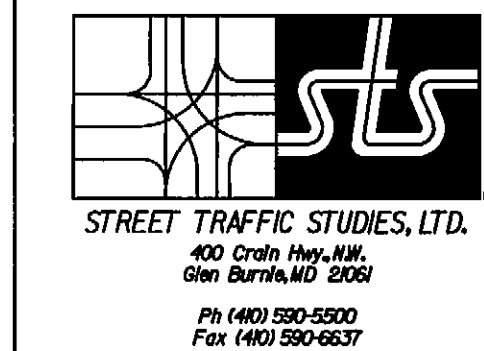
	1	2	3	4	5	6	7	8	9	10	11	12
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)				
PHASE 2 & 6	G	G	G	G	G	G	R	R	WK	WK	DW	DW
PED CLEAR / COUNTDOWN	G	G	G	G	G	G	R	R	FL/DW	FL/DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	G	G	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	R	G	G	DW	DW	WK	WK
PED CLEAR / COUNTDOWN	R	R	R	R	R	R	G	G	DW	DW	FL/DW	FL/DW
4 ALT CHANGE	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

- A, B, C, D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E, F, G, H } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K - EXISTING 12-PAIR INTERCONNECT CABLE
- J - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- EM - MICROLOOP LEAD-IN CABLE EXISTING
- EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING
- ES - EXISTING UNDERGROUND SERVICE TO BE MAINTAINED BY PEPCO
- + - GROUND ROD



SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION		
MD 117 (CLOPPER RD) AND KINGSVIEW ROAD GERMANTOWN, MD		
GENERAL INFORMATION SHEET		
SCALE	NONE	DATE 8/3/10 CONTRACT NO.
DESIGNED BY	R. R. Z.	COUNTY MONTGOMERY
DRAWN BY	R. C.	LOGMILE 15011707.30
CHECKED BY	F. A. P.	TMS NO. K422
F. A. P. NO.		TOD NO.
TS NO. 3798A	DRAWING NO. 2 OF 2	SHEET NO. OF

PLOTTED: \$DATETIME\$
FILE: \$FILE\$